

# **COLORADO DIVISION OF FIRE PREVENTION & CONTROL**



## **DFPC AVIATION OPERATIONS PLAN**

Ver: April 11, 2016 Final

## **LEADER'S INTENT**

The purpose of this Colorado Division of Fire Prevention and Control (DFPC) Aviation Plan is to ensure the safe, effective, and efficient stand up of the DFPC Aviation Program, while simultaneously setting the stage for program flexibility, growth and stability in the years to come.

### **Safety as the first priority**

Standing up a new program is always challenging and risks associated with doing things in a new way must be aggressively mitigated. Therefore, safety is our first priority in all operations. No plan can address every contingency in an environment as fluid and dynamic as aerial firefighting. Where existing plans, policies, and procedures are found to be inadequate for addressing a new situation, every employee, contractor, or others associated with executing any part of this plan, are expected to exercise sound judgment and default to safe parameters of operations.

### **Effectiveness and efficiency through preserving early detection and initial attack resources**

The primary intent of the DFPC Aviation Program is to provide early detection and aggressive initial attack of wildland fires. Other missions, including large fire operations, can be supported so long as it does not compromise this primary mission requirement.

As we continue the DFPC Aviation Program, it will be essential to capture lessons learned to continuously improve this program. Toward that end, I welcome all questions, comments, and ideas for improvement as we evolve this program to its full potential.

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DFPC Aviation Plan  
2016

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# **1 COLORADO DIVISION OF FIRE PREVENTION AND CONTROL AVIATION PLAN**

## **1.1 Purpose**

This plan sets forth policy, procedures, and guidance to implement an aviation management program for Colorado Division of Fire Prevention and Control (DFPC). The purpose is to clarify and standardize aviation management procedures for all DFPC operations. This aviation operations plan is a tool to provide aviation operations information to DFPC employees, contractors and cooperators for both fixed wing aircraft and helicopters.

## **1.2 Mission Statement**

The DFPC Aviation Program provides for safe and efficient aviation services to meet DFPC's wildland fire management goal. Utilization of technology, sound aviation management practices, and highly trained and motivated personnel will reduce risk, loss, waste, and expenditures. The safety of firefighters and the public will continue to be the first priority in all fire management activity.

## **1.3 Aviation Operations Plan Objectives**

- Define DFPC management and aviation operating procedures, and
- Provide direction for agency personnel to conduct safe, efficient, and effective aircraft operations.

This plan is reviewed and updated annually prior to June 1 each year. Suggestions for changes are consolidated by the DFPC Aviation Unit Chief, DFPC Operations Chief, Fire District Managers, Helitack Operations Managers and Fixed Wing Management. Items pertaining to life safety will be addressed immediately via a temporary directive. Revisions or alerts will be made known to all field and office personnel via a statewide memorandum. Items not pertaining to safety, such as suggestions for operational changes or new inclusions to this plan, are submitted at DFPC's Aviation After Action Reviews (AARs) held annually in the fall. Items suggested will be considered for inclusion into the following year's updated version or at other times to the DFPC Aviation Unit Chief. Revisions will be added to the original document with notation of revision date (Example: Helicopter Maintenance & Servicing Revised June 20, 2011). DFPC's Section Chief approves any changes to the plan.

Copies of this document are distributed to DFPC Regions, dispatch and communications centers, user programs and cooperator agencies. Dispatch centers dealing with DFPC aircraft should also possess a current copy of the document and any Safety Alerts or

Directives memorandums. Copies of this document are available on the DFPCs Fire Aviation website.

#### **1.4 Goals**

Suppression costs escalate significantly as fire size increases. A wildland fire becomes a local emergency before it evolves into a State, then regional, then national incident. Colorado's wildland fire management program should continue to hold, as a high priority, the strengthening of first response firefighting forces to safely and effectively suppress wildland fires.

One of DFPC's goals is to develop the capability to detect fires earlier, locate them faster, and provide the local Incident Commander with data needed. One way to achieve this goal is to, make informed decisions regarding suppression strategy, dispatch the appropriate aviation suppression resources expeditiously, and use effective suppression tactics and strategies.

Fast and aggressive initial attack on new fires (for fires where full suppression efforts are the appropriate management response) can reduce the number of mega fires that may burn hundreds of homes and cost the taxpayers tens of millions of dollars in suppression costs.

Because DFPC's role is primarily to support local and county firefighting organizations, in order to achieve this wildland fire management goal, accomplishment of the following enabling goals will be necessary:

1. Generate an incident assessment for every fire within 60 minutes of request, report or detection.
2. Deliver the appropriate aviation suppression resources to every fire within 60 minutes of the request.

Aviation assets will be strategically located based on DFPC's Tactical Aviation Decision Support System (TADSS) or any successor decision support tool.



- *Interagency Aerial Supervision Guide (IASG)*
- *Interagency Aerial Ignition Guide (IAIG)*
- *Interagency Airspace Coordination Guide*
- *Interagency Aviation Mishap Response Guide*
- *Interagency Aviation Training Guide (IATG)*
- *Interagency Aviation Transport of Hazardous Materials Guide*
- *National Association of State Foresters (NASF) Cooperators Aviation Standards For Interagency Fire*
- *Wildland Fire Qualification System Guide, PMS 310-1,*
- *Interagency Airplane Pilot Practical Test Standards*
- *Interagency Helicopter Pilot Practical Test Standards*

Aviation personnel shall meet National Wildfire Coordinating Group (NWCG) Standards for the aviation positions they fill. These position qualifications are found in the current *Wildland Fire Qualification System Guide, PMS 310-1*.

Pilots shall meet the experience and qualification requirements outlined in the *NASF Cooperators Aviation Standards for Interagency Fire*. Pilots shall be evaluated and approved (carded) by an Interagency Inspector Pilot to Federal Interagency Practical Test Standards (IPTS)\* – Areas of Operation standards for the Special Use Authorization applicable to the missions assigned and/or approved (See Chapter 5 of this Plan for Special Use Operations).

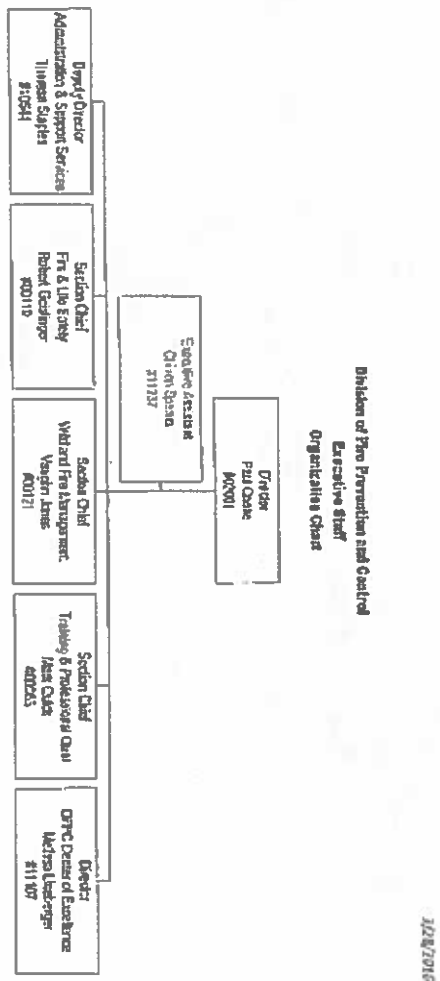
All DFPC aircraft shall be inspected and approved (carded) to NASF Cooperators Aviation Standards for Interagency Fire by an Interagency Aviation Safety – Airworthiness Inspector (Maintenance Inspector).\*\*

\*On Call SEAT pilots required to meet interagency carding standards but may not be carded.

\*\*On Call SEAT aircraft are required to meet Interagency On Call Contract standards but may not be carded. On Call SEAT aircraft and pilots will be inspected by Federal Inspectors for Interagency Letter of Cooperator Approval.

## 2 ORGANIZATION

### 2.1 DFPC Aviation Organization Chart



**Division of Fire Protection and Control  
Wildland Fire Management Section  
Operations Unit**

[illegible]

### Organization Chart



### **3 ROLES AND RESPONSIBILITIES**

#### **3.1 DFPC Director**

The Director has overall responsibility for the state aviation program, which is delegated to the Aviation Branch Chief through the Chief of Wildland Fire Management Section. Specific responsibilities include, but are not limited to, the following:

- Disseminate aviation policy and information.
- Promote the *DFPC Aviation Safety Management System (SMS)*.
- Assign a liaison for any DFPC aviation incident/accident investigation.
- Ensure adequate aviation management staff and funding.

#### **3.2 Wildland Fire Management Section Chief**

The Wildland Fire Management Section Chief supervises the Branch Chiefs and has the authority to prioritize allocation and pre-positioning of fire aircraft assigned within the state.

Approve aviation assets for out-of-state projects and assignments beyond initial attack.

Supervise the DFPC Safety Manager

#### **3.3 Wildland Fire Management Deputy Section Chief**

In the event the Section Chief is unavailable, the Deputy Section Chief will assume all duties of the Section Chief.

#### **3.4 Operations Branch Chief**

The Operations Branch Chief supervises the Area FMOs and obtains input on aviation needs from the FMOs and relays these requests to the Aviation Branch Chief and the Section Chief. Primary responsibilities include the daily management of all DFPC field and suppression operations.

- Managing statewide fire operations. Coordinate with the Aviation Branch Chief for aviation operations.
- Confirms availability of aviation resources.
- Authorizes staging and movement of DFPC aircraft within Colorado
- Primary DFPC representative to the Rocky Mountain Area (RMA) Tactical Operations Group. Coordinates federal and adjacent states on placement of multi-agency aviation and suppression resources within the RMA to effectively meet the needs of current and anticipated wildfire incidents.
- Ensure qualifications and capabilities of DFPC Operations personnel (employees and detailers)
- Gather, update, and apply situational information relevant to operations.
- Ensure the safety, welfare, and accountability of assigned personnel.
- Gather, analyze, and validate information pertinent to the operation and make

recommendations for setting priorities.

- Serves in DFPC Duty Officer rotation.
- May serve as WFMS Chief in their absence.

### **3.5 Aviation Unit Chief**

The Aviation Unit Chief serves as the principal aviation professional for the DFPC Director and is responsible for providing aviation program management, oversight and support. Aviation Branch Chief

- Develops and implements the DFPC Aviation Plan, and establishes aircraft safety and accident prevention measures.
- Reviews all Project Aviation Safety Plans (PASP) with a final risk rating of "High" or above prior to implementation
- Coordinates daily aviation operations with the Operations Branch Chief.
- Authorized to order aircraft; ensures all aircraft ordering and dispatching occurs via a dispatch office.
- In coordination with Planning and Operations Branch Chiefs initiates movement of aircraft.
- Provides statewide statistical analysis and reporting.
- Ensure qualifications and capabilities of DFPC aviation personnel (employees and detailers). Serves as a member of the DFPC Wildland Fire Qualifications Committee.
- Ensure pilot and aircraft capabilities meet mission objectives.
- Ensuring unsafe aviation management activities are corrected and appropriately documented in both external and internal reporting systems.
- Ensure the safety, welfare, and accountability of assigned personnel.
- Serves as a member of the Rocky Mountain Area Aviation Committee, which is chartered under the Rocky Mountain Coordinating Group (RMCG). Serves as an alternate DFPC representative to the RMA Tactical Operations Group.
- Serves as a Contracting Officer Representative for DFPC exclusive use aircraft.
- Ensure contracts, inspections, carding and certifications for aircraft are completed and meeting DFPC and required interagency standards.
- Ensure qualifications and capabilities of all DFPC aircraft.
- Reviews VIP flights.
- Serves in DFPC Duty Officer rotation.
- Serves as the statewide point of contact for airspace coordination issues.
- Coordinates with other interagency and state agency partners on regional and state levels.

- Ensures annual Interagency Authorization of all DFPC aircraft.
- Coordinate with State and Federal Military aviation partners.
- With the Division Public Information Officer coordinate Public Relations as it pertains to the Aviation Program.
- Ensure visiting incident management teams receive a DFPC aviation briefing.

### **3.6 Aviation Specialist**

The Aviation Specialist is a member of the State Aviation Staff and works directly for, and as Assistant to, the Aviation Unit Chief. This position supports state and national initiatives aimed toward enhancement and standardization of the DFPC Aviation Program. Primary focus of the position is administration, safety and operational efficiency of the DFPC Aviation Program.

- Ensures regional compliance with DFPC policies and regulations.
- Confirms that a qualified flight manager is assigned to all project/non-fire flights.
- Ensures that visiting aircrews and pilots receive a DFPC aviation briefing.
- Assists fire management zones project leaders in development of PASPs.
- Identifies flight hazards and coordinates the creation of an annual updating of flight hazard map products. (Reference Redbook Chapter 16, IHOG Chapter3) in coordination with interagency partners.
- May serve as a member of incident/accident investigation team.
- Collects and compiles aviation activity statistics and makes reports.
- Coordinate intelligence and situational information relevant to aviation operations.
- Coordinate and oversee all aircraft contract administration.
- Provide logistical support and services to the aviation program (resource orders, supplies, etc.).
- Develops and maintains aviation training program. Works with Aviation Safety Manager to ensure training standards are met.
- Facilitates and tracks aviation training.
- Coordinate with the Multi Mission Aircraft Unit Chief, Fire Management Officers, and Aircraft Managers.
- Obtain appropriate vehicles for seasonal aviation staff.
- Create and distribute pilot briefing packets.
- Contact person for aviation supply orders.
- Ensure ROSS resource orders are collected and documented.
- Establish ROSS support codes as needed.

- Contact person for all aviation program purchases.
- Reconcile all aviation program purchases.
- Update and distribute aviation frequency lists annually.
- Review and approve project/non-fire flight requests.
- Coordinate VIP flights.
- Create and maintain an aviation database.
- Reconcile aviation invoices.
- May serve in the Aviation Unit Chief role in their absence.

### **3.7 Multi Mission Aircraft Unit Chief**

The MMA Unit Chief is a member of the State Aviation Staff and works directly for, and as Assistant to, the Plans Branch Chief. This position supports state and national initiatives aimed toward enhancement and standardization of the DFPC Aviation Program. Primary focus of the position is safety and efficiency of MMA operations.

- Provides technical guidance and serves as principal technical advisor for MMA and fixed wing operations.
- Provides leadership to DFPC personnel and cooperating agencies for planning, developing, and maintaining MMA and fixed wing operations.
- Provides input on MMA and technical requirements, specifications and procedures for interagency agreements, PASPs, mutual aid and operating plans.
- Performs inspections and site visits and identifies need for Aviation Safety.
- Conducts field tests and evaluates aircraft related equipment and accessories.
- Reviews and manages SAFECOMs and may serve as a member of incident/accident investigation teams.
- Serves as Contracting Officer Representative (COR) for the MMA contract.
- Complete base audits of all active bases and create a summary
- Coordinate MMA training sessions as needed
- Coordinates and monitors FAA certifications and maintenance requirements.
- Creates and maintains an aviation reference library.
- Coordinate and provide input for Pilot Briefing Packets
- Ensure aircraft and pilots are interagency carded before start of contract
- Coordinate and facilitate interagency cooperator approval letters with Aviation Unit Chief.
- Conduct pilot in-briefings for all pilots
- Conduct pilot exit interviews for all pilots
- Collect and document ROSS resource orders





helicopter personnel if aircraft are repositioned to their region.

- Ensures regional flight compliance with DFPC policies and regulations.
- Confirms that a qualified flight manager is assigned to all project/non-fire flights.
- Ensures that visiting aircrews, pilots, incident management teams receive a regional aviation briefing.
- Provide immediate field response to requests for assistance with wildland fires.
- Supervise daily operations, host, and support all DFPC aircraft assigned to their Region. Ensure that daily briefings and dispatch coordination are completed for all resources assigned to their Region.
- Coordinate non-fire projects with the aircraft managers.
- Primary point of contact for fire department, county, federal agency, and dispatch center partners within his/her Region.
- Establish priorities for all non-fire missions and make assignments for all aircraft assigned to their region.
- Conduct performance evaluation of helicopter personnel.
- Evaluate DFPC and cooperator aviation needs in their region.
- Coordinate aviation training with relevant Aircraft Managers and Aviation branch personnel to address regional aviation training needs.

### **3.13 Pilot**

The Pilot is in command of the aircraft and has ultimate responsibility under FAA regulations and requirements for the safety of the aircraft and persons on board.

- Operates the aircraft in accordance with the applicable FARs and DFPC policy and SMS policy (from Company and Agency).
- Develops, activates, and closes FAA and agency flight plans.
- Wears personal protective equipment when required.
- Does not deviate from the filed flight plan or mission profile unless prior authorization is received.
- Performs a thorough pre-flight inspection of the aircraft and briefs all passengers in accordance with current FAA requirements.
- Completes load calculations and weight and balance computations prior to flight.
- Completes flight invoices for services rendered.
- The pilot is empowered to terminate a flight at any time for safety reasons.

### **3.14 Aircraft Manager**

Aircraft Managers include Helicopter Managers (HMGB's), Single Engine Air Tanker (SEAT) Managers (SEMG's) and Multi-Mission Aircraft (MMA) Managers. Each Manager shall comply with their appropriate DFPC and Interagency Operations Guide(s).

- Plans, coordinates and supervises aircraft operations according to DFPC policy.
- Coordinate non-fire aviation projects with Regional FMOs and appropriate Aviation Branch personnel.
- Administer Exclusive-Use, Call When Needed (CWN) or On-Call aviation contracts in the field.
  - Ensure necessary contract documentation is completed and sent to the Aviation Specialist in the appropriate time frame.
  - Manage operational contract performance issues.
  - Consult with MMA Unit Chief, Aviation Specialist or Aviation Unit Chief in the event contract disputes cannot be managed at the aircraft level.
  - Directs pilots and crews and provides operational and safety briefings to aircrews, project leaders, and passengers.
- Conducts risk and hazard analysis, completes flight invoices, daily diaries, cost summaries and all related documentation.
- Consults with FMOs, MMA Unit Chief, Aviation Specialist or Aviation Unit Chief on any aviation issue.
- Follow agency safety management system policy.

### **3.15 Flight Manager/Chief of Party (COP)**

The Flight Manager is the DFPC representative who works jointly with the pilot-in-command and aircrew members to ensure safe, efficient flight management on flights. Flight Manager ensures compliance with contract requirements and is responsible for coordinating the given flight or project. The Flight Manager will generally be the Aircraft Manager with the exception of the MMA, when the Flight Manager may be Aviation Branch Personnel or other employees who meet the qualification standard for the level of mission assigned as set forth in the Interagency Aviation Training Guide (IATG), and are designated by the Aviation Unit Chief. Special Use flights may require additional supervision.

- Briefs pilots on missions, frequencies, flight routes, hazards, flight following, passenger briefing requirements and any other related information required.
- Checks the pilots' qualification cards and aircraft data cards for approval and currency. Distinguish the difference between Point to Point versus Mission specific special mission Qualification Card.
- Ensures that flights are safely conducted and do not deviate from filed Flight Plans or





- References: *Interagency Standards for Fire and Fire Aviation Operations*, chapter 12.
- The US Forest Service has new avoidance areas for any aerial fire retardant application. Dispatch Centers should have maps of the local USFS avoidance areas. A link to the Environmental Impact Statement and the USFS Record of Decision is at: *USFS Aerial Application of Retardant*.

#### **4.7 Fire Exclusive Use Aircraft Contracts**

The Aviation Unit Chief or Aviation Specialist serves as the Contracting Officers Representative (COR) for all DFPC aviation contracts.

#### **4.8 Contractor Evaluations**

The Contractor Performance Evaluation form is to be used for the contractor performance evaluation. The form is to be completed by the aircraft manager, with a copy routed to the Contracting Officer and Aviation specialist.

#### **4.9 Cooperator Aircraft**

This plan does not impact current use of cooperator aircraft. Existing protocols for use of federal, other state, or local government agency or military aircraft will continue under existing interagency and state processes.

#### **4.10 VIP Flights**

Aircraft may be used to transport personnel to meetings, administrative activities, or training sessions. These flights are requested through the Duty Officer, Aircraft Manager, Aviation Unit Chief or Aviation Specialist and forwarded to the Aviation Unit Chief, and must be approved by the Director or the Director's designee. All passengers must be authorized by the Aviation Unit Chief or their designee. For MMA aircraft authorized passenger lists must be maintained by the Planning Unit Chief or the MMA unit chief for MMA flights, and relayed to the vendor for part 135 compliance. All VIP flights on the MMA are requested through the Duty Officer, MMAUC, and or the Plans Branch Chief, and must be approved by the Director or their designee.

#### **4.11 Search and Rescue (SAR) Flights**

Search and Rescue (SAR) missions will be evaluated and accepted and charged on a case-by-case basis. Cooperator agreements and approvals must be in place for all missions.

#### **4.12 National Guard and United States Military Aircraft Flights**

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#### **4.13 Dispatching - Flight Requests**

*Ver: April 11, 2016*

The Interagency Zone Dispatch Centers will be utilized for resource ordering and dispatching of DFPC helicopters and SEATs. **Ordering of DFPC tactical fixed-wing and rotor-wing resources will follow current Rocky Mountain Area (RMA) standard Mobilization Guide procedures for ordering tactical aircraft.**

MMA requests must be placed as follows:

- For **State, County, Fire Department and other non-federal agencies : Multi-Mission Aircraft (MMA)** requests shall be placed through the Denver Regional Colorado State Patrol (CSP) Dispatch
- For **In-State Federal agencies: MMA requests shall be initially placed through the Interagency Dispatch Center, who will place the order through Denver Regional Colorado State Patrol (CSP) Dispatch**

Contact CSP Dispatch via the State Emergency Operations Line (303-279-8855). Request to order the DFPC MMA and to speak to the **DFPC Duty Officer**. Orders are to include information on the current DFPC MMA Request Form, as attached and also available for download on the Colorado Division of Homeland Security & Emergency Management (DHSEM) web portal: <http://www.dhsem.state.co.us/> under the Colorado Daily Status Report Link

- For **DFPC mission requests** : call the DFPC Duty Officer Direct.
- For **Out-of-State Requests**:

MMA request shall be placed through the Rocky Mountain Area Coordination Center via the Resource Ordering and Status System (ROSS). RMACC will coordinate with the DFPC Duty Officer as needed.

The MMA generally operate under FAA flight plans and flight following, however the MMA aircraft are active in AFF and may be Agency Flight Followed if requested.

CSP will relay MMA orders to the DFPC Duty Officer who will relay mission information to the MSO-Sensor Operator and the MMA Unit Chief for approval. Once the aircraft is committed to a mission RMACC will be notified and the MMA placed in "committed" status. RMACC will also be notified when the MMA is released, and placed back in "available" status.

#### **4.14 Aircraft Flight Service Ordering**

Only positions approved by the Director are authorized to order aircraft from the aviation contracts.

#### **4.15 Inter-agency Agreements (IAA)**

All aircraft services procured by DFPC through another agency will be conducted under an Interagency Agreement. DFPC aircraft are approved for interagency use through an annual Authorization Letter of Approval.

#### **4.16 Aircraft Payment Systems**

Aircraft payment systems will follow state contract requirements and existing interagency agreements.

#### **4.17 Fund Codes**

DFPC staff will create a DFPC budget on a State of Colorado fiscal year basis, which will incorporate funding and operational costs for the DFPC program. The Operations Branch Chief and Aviation Unit Chief will coordinate with the Rocky Mountain Area Coordination center to develop support codes for DFPC aircraft.

#### **4.18 Aviation Program Reviews**

Periodic aviation program reviews will be conducted at the direction and discretion of the Director, but will occur at least annually as part of the *Aviation Safety Audit* program.

## **5 SAFETY**

### **5.1 General**

The DFPC aviation safety program is nested in the overall fire safety effort and modeled after the Federal Aviation Administration (FAA), International Civil Aviation Organization (ICAO), and International Standard for Business Aircraft Operations (IS-BAO) Safety Management Systems (SMS) elements. DFPC manages safety risks related to its operations to as low a level as reasonably practicable. All identified safety hazards will be analyzed and, where possible, eliminated or mitigated. Mitigation is developed, implemented, and tracked to verify that the level of the associated risks is acceptable.

### **5.2 Safety Management Systems**

Safety Management Systems is an evolutionary development of the traditional flight safety program that significantly enhances the safety of an aviation operation. A successfully developed and implemented SMS ensures that safety is a core value in the DFPC organization and that safety is integrated into all management systems including operations, maintenance, finance, and human resource management. DFPC uses a SMS to ensure consistently safe and efficient air operations. The DFPC SMS Manual is the primary resource describing the DFPC SMS components. See attachment F.

### **5.3 Safety Policy**

The purpose of the safety policy is to ensure that safety is managed proactively and effectively. This is done by obtaining consistent and optimal aircraft and human performance, identifying hazards and managing the associated safety risks specific to DFPC operations, actively seeking feedback from those involved in the operation, and improving safety management activities.

### **5.4 Aircraft Incident/Accident Investigation Process**

The DFPC incident or accident investigation process is covered in its entirety in the DFPC SMS Manual. See attachment F.

### **5.5 Aviation Safety and Technical Assistance Team (ASTAT)**

Aviation Safety and Technical Assistance Teams enhance safe, efficient, and effective aviation operations. An ASTAT provides assistance to unit and aviation managers, flight crews, and incident management teams for increasing, ongoing or declining incident aviation activity. The Rocky Mountain Area Mobilization Guide details ordering procedures. Coordinate with the Aviation Unit Chief for facilitation of ASTAT requests.

### **5.6 Aviation Safety Communiqué (SAFECOM) and DFPC Aviation Hazard Report**

Aviation operations under Colorado operational control that have reportable events will be reviewed at the Aviation Unit Chief level. SAFECOMs are reportable by anyone who witnesses, or has specific knowledge of, an event. Reports should be sent to the Aviation Unit Chief or Aviation Specialist. SAFECOM events for DFPC aircraft/aircrews that occur on incidents under federal

firefighting jurisdiction and are reported in the National SAFECOM system should be courtesy copied to the Aviation Unit Chief for comment and mitigation.

- SAFECOMs can be reported several ways, in order of preference:
  - a. Electronic SAFECOM form (provided to all DFPC aviation managers), emailed to the Aviation Unit Chief.
  - b. Paper SAFECOM form faxed to the Aviation Unit Chief, at [\(303\) 239-3811](tel:3032393811).
- The Aviation Unit Chief will review DFPC SAFECOMs. Response and mitigation measures will be forwarded to all DFPC aviation personnel
- Events that are significant in their potential to be accidents are generally classified as Incidents with Potential (IWP).
- IWP's will be reported immediately to the Aviation Unit Chief. The Unit Chief will inform the Wildland Fire Management Section Chief, the DFPC Director, and the Operations Branch Chief.
- The Aviation Unit Chief will forward incidents with implications that could improve safety on an interagency, regional, or national level to the national SAFECOM web site at [www.safecom.gov](http://www.safecom.gov).

#### **5.7 Program Evaluations, Aviation Reviews, Aviation Safety Audits**

As previously stated in Paragraph 3.18, periodic aviation program reviews will be conducted at the direction and discretion of the Director, but occur at least. *Aviation Safety Audits* can be directed or accomplished by either the Aviation Unit Chief at their discretion at any time to ensure the safety of operations, and may include other federal or private reviewers.

#### **5.8 Lessons Learned**

Anyone can submit aviation lessons learned from After Action Reviews (AAR's) or events to the Aviation Unit Chief. The Unit Chief will coordinate development of the lessons learned document and disseminate.



*Interagency Aviation Mishap Response Guide and Checklist*

operations are authorized in coordination with appropriate agencies conducting SAR operations. Existing safety protocols and operational restrictions are not to be compromised in any SAR operation.

#### **6.13 Large Airtanker (LAT), Very Large Airtanker (VLAT)**

Large Airtankers and Very Large Airtankers are coordinated nationally through the Geographic Area Coordination Center (GACC). The [Rocky Mountain Geographic Area Mobilization Guide](#) describes ordering procedures.

#### **6.14 SEAT Operations**

See *Interagency Single Engine Airtanker Operations Guide (ISOG)* and *2016 Colorado Interagency Single Engine Air Tanker Operations Plan*.

#### **6.15 Helicopter Operations**

See *Interagency Helicopter Operations Guide (IHOG)* and *DFPC 2016 Helicopter Operations Plan*.

#### **6.16 Aerial Ignition**

See *Interagency Aerial Ignition Guide (IAIG)*

#### **6.17 Light Fixed Wing Operations**

DFPC may employ Light Fixed Wing aircraft in any of the following roles:

- Dedicated Aerial Fire Detection Aircraft.
- Intelligence, Surveillance, and Reconnaissance.

#### **6.18 Multi Mission Aircraft – Aerial Supervision**

Multi Mission Aircraft (MMA) is equipped with modern sensing, processing, and communication systems to allow for the gathering and dissemination of real-time wildland fire information. The multi-mission aircraft are integrated into the state's wildfire information management system (CO-WIMS) to allow all data to be immediately available to wildland fire managers across the state.

MMA aircraft are intended for detection and aerial intelligence purposes, to assist local jurisdictions with initial attack wildland fire response on state and private lands within the State of Colorado. Air Tactical Missions (Air Attack) are not currently utilized for the MMA aircraft. However, per MMA contract, pilot and aircraft will be air attack qualified and hold interagency cards, which facilitates interagency acceptance and use if state and local missions are not pending. For the interim there will not be a qualified Air Tactical Group Supervisor (ATGS) on board the aircraft. Future plans for the MMA may involve use as an air attack platform, and plans and policy will be revised and distributed prior.

When available, MMAs may be tasked to perform aerial surveillance by providing assistance to Incident Commanders (IC) regarding fire behavior, weather monitoring, assisting crews with access,

operational mapping, and communication links.

The sensing, information management, and communications equipment on board the MMAs enable them to function in the following roles:

- New start detection and location.
- Geospatial product generation.
  - Real-time fire perimeter generation.
  - Real-time intensity location identification.
  - Communication relay and gateway.
- Retardant monitoring.
  - Drop accuracy and retardant effectiveness.
- Incident status reporting.
- Evacuation monitoring.
- Safety over watch and response.
- Prescribed burn monitoring and escape detection.
- Smoke management.
- Fire behavior surveillance.
- Firefighter and supply

transport. MMA pilots are required to:

- Hold a Commercial or Airline Transport Pilot (ATP) Certificate with appropriate rating and a valid Class I or Class II FAA Medical Certificate;
- Have completed A-110 Hazardous Materials within the last 36 months; and
- Be carded for Precision Resource/Recon and Mountain Special Use Authorizations in accordance with the Federal Interagency Practical Test Standards (IPTS) – Areas of Operation standards.

When MMA are performing aerial supervision missions, Leadplane and ASM functions are not authorized (see IASG). For More information see the Multi Mission Aircraft Operating Plan,

## **7 DFPC AVIATION TRAINING**

### **7.1 General**

Aviation training is essential to ensure that DFPC maintains a safe and efficient aviation operation. Aviation users, supervisors, and managers need to make certain that they and their employees are knowledgeable of the inherent hazards of aviation operations and have been provided the necessary skills and training to be successful conducting aviation operations.

### **7.2 Fire Training and Qualifications**

The National Wildfire Coordinating Group (NWCG) has established training and qualification standards for wildfire, prescribed fire and fire aviation positions. Personnel serving in NWCG positions shall meet the qualification and currency requirements in the *Wildland Fire Qualification System Guide* (NWCG PMS 310-1).

### **7.3 NWCG to IAT Crosswalk**

See **S Course Equivalency for IAT Modules** in the Interagency Aviation Training Guide found at [https://www.iat.gov/docs/IAT\\_Guide\\_2014\\_0331.pdf](https://www.iat.gov/docs/IAT_Guide_2014_0331.pdf).

Aviation training and qualifications are tracked by the immediate supervisor of the aircrew member or DFPC employee.

## **8 AIRSPACE COORDINATION**

### **8.1 Interagency Airspace Coordination**

Interagency airspace coordination is accomplished through the Interagency Airspace Steering Committee (IASC) chartered under the National Interagency Aviation Council (NIAC). Guidance and education is provided through the [Interagency Airspace Coordination Guide](#).

### **8.2 Fire Traffic Area (FTA)**

The FTA provides a standardized initial attack sequence structure to enhance air traffic separation over wildland fire or all-risk incidents. The structure emphasizes established communications, clearances and compliances. The FTA process will be used by all tactical aircraft. See the [Interagency Aerial Supervision Guide \(IASG\)](#) for details.

### **8.3 Temporary Flight Restriction (TFR)**

In order to enhance safety during an incident, the FAA may be requested to issue a TFR that closes the airspace to non-participating aircraft (with some exceptions). While there are currently nine different types of TFR's, the most commonly issued TFR for wildland fire is 14 CFR 91,137 (a) 2 which is explicit as to what operations are prohibited, restricted, or allowed. Ordering procedures, coordination protocol and exceptions are outlined in [Chapter 6](#) of the [Interagency Airspace Coordination Guide](#).

### **8.4 Aircraft Transponder Code (Firefighting)**

The FAA has provided the 1255 Transponder code as the national designation for firefighting aircraft. It is not agency specific. The code should be utilized by aircraft responding to and operating over fire incidents supporting suppression operations (unless otherwise directed by Air Traffic Control (ATC)). It is not to be used for repositioning or during cross-country flights.

## **9 AVIATION SECURITY – AIRCRAFT**

### **9.1 Aviation Security Policy**

The Contractor is responsible for the security of their aircraft, vehicles, and associated equipment used in the support of DFPC contracts. Any aircraft used under DFPC contracts shall be physically secured and disabled by the contractor whenever the aircraft is unattended. State owned aircraft will comply with all state and local security protocols.

### **9.2 General Aviation Security Awareness Program**

The Department of Homeland Security (DHS) TSA implemented a national toll-free hotline that the general aviation (GA) community can use to report any “out-of-the-ordinary” event or activity at airports. The hotline is operated by the National Response Center and centralizes reporting to the appropriate local, state and federal agencies.

To report any suspicious activity at your airport- Call (866) GA-SECURE (866) 427-3287.

### **9.3 Cooperator’s Aircraft Security**

Military or government agency cooperator aircraft under DFPC operational control shall adhere to their department-specific aircraft security policies.

### **9.4 Aircraft Physical Security Requirements**

Security devices may consist of any combination of anti-theft devices attached to the aircraft for the sole purpose of locking flight controls, aircraft power, or directional ground movement. Pilots and aircrews must be diligent in pre-flight procedures to prevent engine start up with security measures in place. These may include any combination of the following:

- Locking hanger doors.
- Keyed Magneto, starter, or master switch.
- Hidden battery cut-off switches.
- Throttle, mixture/fuel, fuel cut-off locks.
- Control surface gust-locks; propeller locks (chain, cable, mechanical) – (airplane only).
- Locking wheel, chock or aircraft tie downs.
- “Club-type” devices for control yoke.

**ATTACHMENT A – DFPC AVIATION DIRECTORY****DFPC Aviation Organization Directory**

Position	Name	E-Mail	Office Phone
DFPC Director	Paul Cooke	<a href="mailto:Paul.Cooke@state.co.us">Paul.Cooke@state.co.us</a>	(303) 239-4600
Wildland Fire Section Chief	Vaughn Jones	<a href="mailto:Vaughn.Jones@state.co.us">Vaughn.Jones@state.co.us</a>	(303) 909-5735
Deputy Wildland Fire Section Chief	Phil Daniels	<a href="mailto:Phil.Daniels@state.co.us">Phil.Daniels@state.co.us</a>	(720) 315-4240
Aviation Unit Chief	Vince Wellbaum	<a href="mailto:Vince.Wellbaum@state.co.us">Vince.Wellbaum@state.co.us</a>	(720) 413-2537
Aviation Specialist	Sonya Whitesell	<a href="mailto:Sonya.Whitesell@state.co.us">Sonya.Whitesell@state.co.us</a>	(970) 817-3370
Planning Branch Chief	Rocco Snart	<a href="mailto:Rocco.Snart@state.co.us">Rocco.Snart@state.co.us</a>	(303) 445-4364
Multi Mission Aircraft Unit Chief	Bruce Dikken	<a href="mailto:Bruce.Dikken@state.co.us">Bruce.Dikken@state.co.us</a>	(729) 729-7685
Operations Branch Chief	vacant		
East Area FMO	Paul Duarte	<a href="mailto:Paul.Duarte@state.co.us">Paul.Duarte@state.co.us</a>	(719) 466-3341
Regional FMO - Northeast	Matt Branch	<a href="mailto:Wilson.Branch@state.co.us">Wilson.Branch@state.co.us</a>	(970) 776-6335
Regional FMO North Central	Travis Griffin	<a href="mailto:Travis.griffin@state.co.us">Travis.griffin@state.co.us</a>	(303) 704-285
Regional FMO NC Foothills	Dan Escobedo	<a href="mailto:Dan.Escobedo@state.co.us">Dan.Escobedo@state.co.us</a>	(720) 413-2917.
Regional FMO South Central	Brenda Wasielewski	<a href="mailto:Brenda.Wasielewski@state.co.us">Brenda.Wasielewski@state.co.us</a>	(719) 963-7838


Regional FMO South & Southeast	Joe Lobiondo	<a href="mailto:Joe.lobiondo@state.co.us">Joe.lobiondo@state.co.us</a>	(719) 466-3341
West Area FMO	Steve Ellis	<a href="mailto:Stevend.Ellis@state.co.us">Stevend.Ellis@state.co.us</a>	(970) 964-4746
Regional FMO Northwest	Sam Parsons	<a href="mailto:Samuel.Parsons@state.co.us">Samuel.Parsons@state.co.us</a>	(720) 556-4247
Regional FMO Colorado River	Ryan McCulley	<a href="mailto:Ryan.McCulley@state.co.us">Ryan.McCulley@state.co.us</a>	(970) 765-6279
Regional FMO West	Luke Odom	<a href="mailto:Luke.Odom@state.co.us">Luke.Odom@state.co.us</a>	(970) 773-4259
Regional FMO Southwest	Tanner Hutt	<a href="mailto:Tanner.hutt@state.co.us">Tanner.hutt@state.co.us</a>	????
Regional FMO San Luis Valley	vacant		
Montrose Helicopter Manager	Stephen Winslow	<a href="mailto:Stephen.Winslow@state.co.us">Stephen.Winslow@state.co.us</a>	(970) 222-2784
Montrose Assistant Helicopter Manager	Travis Moore	<a href="mailto:Travis.Moore@state.co.us">Travis.Moore@state.co.us</a>	(970) 623-5779
Canon City Helicopter Manager	Jake Hardt	<a href="mailto:Jake.hardt@state.co.us">Jake.hardt@state.co.us</a>	719-424-0821
Canon City Assistand Helicopter manager	Whitney Murphy	<a href="mailto:Whitney.Murphy@state.co.us">Whitney.Murphy@state.co.us</a>	(719) 424-2661
Boulder Helicopter Manager	detailers for 2016		

**ATTACHMENT B – SAFECOM FORM**

OAS-34  
(12/12)

## Safety Communiqué Form

OAS-34 / FS 5700-14

		<b>REPORTED BY: (optional)</b>	
		Name: E-Mail: Phone: Cell Phone: Pager: Organization: Organization Other: Date Submitted: mm/dd/yyyy	
<b>EVENT</b>			
Date: mm/dd/yyyy	Local Time: hh:mm	Injuries: Y/N	Damage: Y/N
State:	Location: (Airport, City, Lat/Long or Fire Name)		
<b>Operational Control:</b>			
Agency:			
Region:			
Unit:			
<b>MISSION (* see look-up tables)</b>			
Type: *	Other:		
Procurement: *	Other:		
Persons Onboard:	Special Use: Y/N	Hazardous Materials: Y/N	
Departure Point:	Destination		
<b>AIRCRAFT (* see look-up tables)</b>			
Type: *	Tail #	Manufacturer: *	Model:
Owner/Operator:	Pilot:	Manager:	
<b>NARRATIVE: (A brief explanation of the event)</b>			
<b>CORRECTIVE ACTION: (What was done to correct the problem)</b>			

**ATTACHMENT C – DFPC PROJECT AVIATION SAFETY PLAN TEMPLATE**

## PROJECT AVIATION SAFETY PLAN

Primary/Host Agency: (Identify)		Interagency Operation:	
<input type="checkbox"/> USFS Unit:	<input type="checkbox"/> DFPC Unit:	<input type="checkbox"/> Yes	
<input type="checkbox"/> BLM Unit:	<input type="checkbox"/> Other:	<input type="checkbox"/> No	
<input type="checkbox"/> Fire Operation		<input type="checkbox"/> Resource Operation	
<input type="checkbox"/> Law Enforcement Operation		<input type="checkbox"/> Fixed Wing Operation	
		<input type="checkbox"/> Helicopter Operation	
Type of Flight	<input type="checkbox"/> Point to point:	<input type="checkbox"/> Special Use:	<input type="checkbox"/> Reconnaissance:
			<input type="checkbox"/> Other:
<input type="checkbox"/> New Project, full review required		<input type="checkbox"/> Currently approved project/activity, FYI to Regional personnel	
Project Name:		Anticipated Project Date:	
Project Plan Prepared by Name of Preparer:		Title:	Date:
This Flight is Reviewed and Submitted by Project Manager:		Title:	Date:
Project Plan Reviewed by:		Title: Unit Aviation Manager	Date:
Project Plan Reviewed by:		Title:	Date:
Project Plan Approved By:		Title: Line Manager	Date:
Are Supervisors, Managers and Participants Current in IAT/IQCS to Sign and implement Project Aviation Safety Plan?			
Project Description: Include (Flight Objectives to Achieve Mission)			

### ADMINISTRATIVE INFORMATION

Project Supervisor:		Phone:		Cell:	Sat:
Alternate Supervisor:		Phone:		Cell:	Sat:
Fixed Wing Manager:		Phone:		Cell:	Sat:
Fixed Wing Manager-Special Use:		Phone:		Cell:	Sat:
Fire Helicopter Manager:		Phone:		Cell:	Sat:
Project Helicopter Manager:		Phone:		Cell:	Sat:
Aviation Unit Manager:		Phone:		Cell:	Sat:
Charge Code:	AMD Billee Code:	<input type="checkbox"/> OAS-23	<input type="checkbox"/> ABS	<input type="checkbox"/> CWN#	<input type="checkbox"/> ARA#
Aircraft Availability (Per Day):	Aircraft hourly rate:	Fixed Wing Standby rate: x hours=			
RON x personnel =	"Minimum" number of hours per day:	Heli-Service Truck Rate:			
Seeder:	Helitorch:	Batch Truck:			
Extended Pilot:	Extended Driver:	Other:			
Total Per Day:	Number of days	Total cost estimate			
Projected Total Cost =					
Vendor:	Vendor Phone:	Vendor Cell:			
Aircraft Information:	Make and Model:	Color:			
Pilot Name:	Pilot Phone #	Pilot Cell #:			
Driver Name:	Driver Phone #	Driver Cell #			
Aircraft carded: <input type="checkbox"/> Yes <input type="checkbox"/> No			Pilot carded: <input type="checkbox"/> Yes <input type="checkbox"/> No		

### FREQUENCY INFORMATION


### RESOURCE TRACKING INFORMATION

Aircraft Home Base Location:		Resource Order #		Flight #	
Ferry Flight Following and tracking		<input type="checkbox"/> Initiate and terminate By Phone:		<input type="checkbox"/> Radio:	
<input type="checkbox"/> FAA VFR with 60 minute check in:		<input type="checkbox"/> FAA IFR:			
Ferry Start Time:	Stop(s):	Stop(s):	Ferry Ending Time:		
Scheduling Dispatch Phone:	Contact: Aircraft Desk Notes:				
Destination Dispatch Phone:	Contact: Notes:				
Project Flight Following:		<input type="checkbox"/> Local Agency 15 minute:		<input type="checkbox"/> AFF equipped aircraft:	
Search and Rescue Procedures: District Aircraft Mishap Plan, Local SAR Plan"					

**LANDING SITE(S) INFORMATION**

Project Start Location:	Runway Length:	Elevation:	Surface:
Destination Location:	Runway Length:	Elevation:	Surface:
Destination Location:	Runway Length:	Elevation:	Surface:
Ending Location:	Runway Length:	Elevation:	Surface:
Helibase or Helispot Information Lat/Long: BLM: NPS: FS: Private: State:	Location by landmark:	Contact:	Phone:
Helibase or Helispot "approval-to-use" from landowner/manager: <input type="checkbox"/> Yes <input type="checkbox"/> No			
Fuel Truck Location(s):			

**PASSENGER INFORMATION -**

<b>Passengers</b>			
Name:	Weight:	Dept Pt:	Destination Pt:
Supervisor:	Phone:		Current B-3:
Name:	Weight:	Dept Pt:	Destination Pt:
Supervisor:	Phone:		Current B-3:
Name:	Weight:	Dept Pt:	Destination Pt:
Supervisor:	Phone:		Current B-3:
Name:	Weight:	Dept Pt:	Destination Pt:
Supervisor:	Phone:		Current B-3:
Name:	Weight:	Dept Pt:	Destination Pt:
Supervisor:	Phone:		Current B-3:
<b>Cargo</b>			
Weight:	CU FT:	Hazardous Mat <input type="checkbox"/> Yes: <input type="checkbox"/> No:	Destination:
Weight:	CU FT:	Hazardous Mat <input type="checkbox"/> Yes: <input type="checkbox"/> No:	Destination:

**PPE REQUIREMENTS**

Type of flight	Personal Protective Equipment Requirements
<input type="checkbox"/> Fixed wing, point to point	<input type="checkbox"/> Appropriate field attire based on the season, hearing protection recommended
<input type="checkbox"/> Fixed wing, mission flight, 500' above	<input type="checkbox"/> Field attire mandatory, (long natural fiber pants and shirt) PPE recommended
Fixed wing, mission flight, 500" and below (DOI)	<input type="checkbox"/> Full PPE required
<input type="checkbox"/> All Helicopter operations	<input type="checkbox"/> Full PPE required

[http://www.fs.fed.us/fire/av\\_safety/Systems\\_Safety/av\\_risk\\_mgt/index.html](http://www.fs.fed.us/fire/av_safety/Systems_Safety/av_risk_mgt/index.html)

	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>g</b>		<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>y</b> <b>g</b> <b>s</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Job Hazard Analysis Reminder List (check appropriate boxes)	
Issue	Mitigating Measure
<input type="checkbox"/> MTR's and MOA's	<input type="checkbox"/> Check routes in advance. Practice risk management.
<input type="checkbox"/> Private aircraft	<input type="checkbox"/> See and avoid.
<input type="checkbox"/> Airport traffic	<input type="checkbox"/> Stay in radio contact, sterile cockpit
<input type="checkbox"/> Weather	<input type="checkbox"/> Use weather advisory. Maintain VFR minimums.
<input type="checkbox"/> Terrain	<input type="checkbox"/> Maintain separation. Do not place the aircraft in performance related situations.
<input type="checkbox"/> Low level obstacles	<input type="checkbox"/> Complete a high level recon, no unnecessary low level flight operations.
<input type="checkbox"/> Unimproved landings	<input type="checkbox"/> Recon LZ. Download on first load.
<input type="checkbox"/> Doors off helicopter operations	<input type="checkbox"/> Use secondary restraining harness and protected blade raptor type knife. Remove loose items from cabin.
<input type="checkbox"/> Pilot not familiar with area	<input type="checkbox"/> Supply hazard maps. Complete high level recon prior to low level operations.
<input type="checkbox"/> Noise, rotor wash	<input type="checkbox"/> Wear ear and eye protection.
<input type="checkbox"/> Internal and external loads	<input type="checkbox"/> Have trained personnel assigned to the mission. Follow agency policies.
<input type="checkbox"/> Unplanned aircraft events	<input type="checkbox"/> All personnel equipped with PPE, survival gear and trained in crash procedures.
<input type="checkbox"/> Hazardous materials	<input type="checkbox"/> Trained personnel will identify, manifest and insure that the pilot is aware.
<input type="checkbox"/> Non aviation personnel	<input type="checkbox"/> Maintain control, provide through briefings.
<input type="checkbox"/> Communications	<input type="checkbox"/> Maintain communications at all times, establish backup options and acquire alternate frequencies. Take a handheld FM radio on each flight. Call in prior to landing. If radio contact is lost, climb, check tones, etc. If unable to re-establish contact, return to best suitable landing area and check in via landline.
<input type="checkbox"/> Overload conditions/CG issues	<input type="checkbox"/> Complete accurate load calculations and or weight and balance.
<input type="checkbox"/> Winter/cold weather operations	<input type="checkbox"/> Utilize appropriate clothing for conditions, acquire and maintain a survival kit.
<input type="checkbox"/> Prop/rotor hazards	<input type="checkbox"/> Pilot shall provide a safety briefing; approach and departures shall be away from hazards.
<input type="checkbox"/> Multiple aircraft operations	<input type="checkbox"/> Provide adequate aerial supervision. Establish and maintain separation, utilize common frequencies.
<input type="checkbox"/> Aircraft Refueling	<input type="checkbox"/> Refueling is the responsibility of the vendor/pilot. Agency personnel shall not be on board. Aircraft shall be shutdown, unless rapid refueling is approved and requested by agency personnel.

## Additional Hazard Identification, Assessment, and Controls specific to the project

### SYSTEM SAFETY RISK ASSESMENT MATRIX

LIKELIHOOD	SEVERITY		Critical	Catastrophic
	Negligible	Marginal		
Frequent	Medium	Serious	High	High
Probable	Medium	Serious	High	High
Occasional	Low	Medium	Serious	High
Remote	Low	Medium	Medium	Serious
Improbable	Low	Medium	Medium	Medium

**-Steps 1 & 2:** Identify and describe the hazards present for this project. Assess the **Likelihood** of an occurrence of each hazard and determine the potential **Severity** of the outcome by referring to the definitions at the System Safety Matrix site. Click on this link: [System Safety Matrix](#) and then click the link to the **Risk Assessment Matrix**.

Once you have identified the likelihood and severity, determine the **Risk Level** using the matrix above.

**-Step 3:** Identify the mitigation controls to follow that will reduce the **Likelihood** of a hazard occurrence. **\*\*Remember**, the severity will likely remain the same as first determined. The mitigations generally only affect the likelihood of an occurrence. Once you have established the mitigations and changed the likelihood, determine the post mitigation **Risk Level**.

Describe Hazard: Pre-Mitigation hazards rate out as:	Likelihood	Severity	Risk Level
4.			
5.			
Mitigation Controls: Post-Mitigation hazards rate out as:	Likelihood	Severity	Risk Level
3.			
4.			
5.			

**Total Risk Assessment Value** (The highest risk level identified from the System Safety Assessments and the above determined risks shall be applied as the overall total risk value):

☐ Low ☐ Medium ☐ Serious ☐ High

**Project Justification Statement:** This project cannot be accomplished by any other means. The area that will be flown has very limited road access primarily in a wild and scenic river corridor. The type of terrain and vast amount of area that needs to be covered makes foot traffic impossible.

*Ver: April 11, 2016*

**Step 4: Make Risk Decision** – weigh the risk against the benefit of performing the operation. From the determined overall risk, a determination must be made to conduct the operation as planned, apply further controls that may reduce the overall risk further, or not to perform the operation.

**PROJECT MANAGER PRE-OPERATIONAL CHECKLIST**

<input type="checkbox"/> Approved and signed project plan	<input type="checkbox"/> Carded pilot	<input type="checkbox"/> Carded Aircraft
<input type="checkbox"/> Qualified Manager	<input type="checkbox"/> Qualified Crewmembers	<input type="checkbox"/> Hazards Identified
<input type="checkbox"/> Maps of areas/sites	<input type="checkbox"/> Notify Dispatch	<input type="checkbox"/> Weather
<input type="checkbox"/> MTR's MOA's	<input type="checkbox"/> Brief Pilot	<input type="checkbox"/> Brief Passengers
<input type="checkbox"/> PPE	<input type="checkbox"/> Load Calc or Weight and Balance	<input type="checkbox"/> Weights of passengers and equipment
<input type="checkbox"/> Fuel Planning	<input type="checkbox"/> Fuel Truck Locations	<input type="checkbox"/> Permission to land/utilize areas
<input type="checkbox"/> Radio Frequencies / Tones	<input type="checkbox"/> Hobbs Start/End	<input type="checkbox"/> Day/Survival Packs
<input type="checkbox"/> Handheld Radios	<input type="checkbox"/> Satellite Phones	<input type="checkbox"/> Puke Bags

**MAP OF PROJECT SITE:**

**WEATHER FORECAST:****POST-BRIEFING PARTICIPANT SIGNATURES:**

Aircraft Manager:	Signature	Date:
Pilot:	Signature:	Date:
Other Participants:	Signature:	Date:

## ATTACHMENT D – HAZARDOUS MATERIALS SPECIAL PERMIT



U.S. Department  
of Transportation

Pipeline and Hazardous  
Materials Safety Administration

East Building, PH-1 - 30  
1205 New Jersey Avenue, Southeast  
Washington, D.C. 20580

### SPECIAL PERMIT AUTHORIZATION

DOT-SP 9198

**EXPIRATION DATE: 2020-02-29**

**GRANTEE:** PUBLIC SAFETY, COLORADO DEPARTMENT OF  
FORT COLLINS, CO

In response to your January 14, 2016 application for renewal of DOT-SP 9198, the grantee status to DOT-SP 9198 for PUBLIC SAFETY, COLORADO DEPARTMENT OF is hereby renewed in accordance with 49 CFR 107.109.

Copies of this special permit may be obtained by accessing the Office of Hazardous Materials Safety Homepage at <http://www.phmsa.dot.gov/hazmat/regs/sp-a/special-permits/search>. The most recent revision of the special permit supersedes all previous revisions of the special permit. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

If you have questions regarding this action please call the Office of Hazardous Materials Approvals and Permits Division at (202)366-4535.

Issued in Washington D.C. on March 31, 2016.

for Dr. Magdy El-Sibaie  
Associate Administrator for Hazardous Materials Safety

Tracking Number: 2016025270



## OAS TECH BULLETIN

No. TB 2015-02

December 17, 2014

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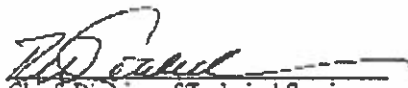
**SUBJECT:** Renewed Hazmat Special Permit: DOT-SP-9198 (Sixteenth Revision)

**DISTRIBUTION:** All Aviation Users

**ISSUE:** The U.S. Department of Transportation's Special Permit Authorization DOT-SP 9198 regarding carriage of hazardous materials (hazmat) aboard aircraft under the control of DOI has been renewed. The DOI permit has an expiration date of July 31, 2018. Copies of the current Special Permit Authorization and the Sixteenth Revision of the DOT-SP 9198 are attached.

**DISCUSSION:** As a reminder, DOT-SP-9198 requires:

1. A current copy of the *Interagency Aviation Transport of Hazardous Materials (IATTHM) Handbook/Guide*, dated January 2005, and the *Emergency Response Guide (ERG)* must be carried aboard each aircraft transporting hazardous materials.
2. A current copy of the special permit, the IATTHM handbook/guide, and the ERG must be maintained at each facility where the hazardous materials are offered or received for transportation. For helicopter field operations, material must be loaded or unloaded under the direct supervision of an agency employee trained in accordance with the handbook/guide.
3. All aircraft operated under this special permit must be Government owned or under a Government contract and under the exclusive direction and operational control of the DOI for the purposes of a Government function such as firefighting, search and rescue, law enforcement or biological/geological resource management.
4. Vendors under operational control of the DOI shall operate in accordance with this special permit and the IATTHM handbook/guide, in lieu of their FAA-approved Hazmat manual.
5. All personnel who perform a function subject to this special permit must receive training on the requirements and conditions of this permit.

  
Chief, Division of Technical Services  
Office of Aviation Services  
U.S. Department of the Interior

2 Attachments:

- (1) Sixteenth Revision of the DOT-SP 9198
- (2) Special Permit Authorization DOI DOT-SP 9198

